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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,426	11/14/2001	Tae-kyung Kim	1293.1165	6668

21171 7590 12/20/2002

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EXAMINER

CHOI, WILLIAM C

ART UNIT PAPER NUMBER

2873

DATE MAILED: 12/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/987,426

Applicant(s)

KIM ET AL.

Examiner

William C. Choi

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-35 is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 9-16 and 36-42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Objections*

Claims 1, 4, 7, 8, 21, 23, 36 (and dependent claims 37-41) and 42 are objected to because of the following informalities: in claim 1, line 4, "the" should be inserted between "of" and "surfaces" to correct the grammar.

In claim 4, lines 1-2, "having a negative power" is enclosed in brackets, "[ ]", when commas ",", should be used.

In line 1 of claims 7, 8, 21 and 23, "the" should be inserted after "wherein" to correct the grammar.

In line 1 of claims 36 and 42, the use of slashes in "recording/reproducing" and "to/from" renders the claim vague and indefinite. For purposes of examination, it was assumed that applicant meant, "recording and reproducing" and "to and from". Claims 37-41 inherit the indefiniteness of parent claim 36. Also, in line 13 of claim 42, the letter "a" should be added to "spherical" to provide consistency with the "aspherical" limitations of the preceding claims. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by DeJager (U.S. 3,912,379).

In regards to claim 1, DeJager discloses an objective lens device (Abstract and column 1, lines 7-9, Figure 1) comprising three lenses (column 1, lines 23-26, Figure 1, "1"- "3") wherein: a first of the three lenses has a negative power (column 1, lines 25-26, Figure 1, "2") and is formed of a material having an Abbe number which is 45 or less in line d (column 1, lines 51-52 and column 2, Example 1 "2"), and at least one surface of the surfaces of the three lenses is aspherical (column 1, lines 28-31).

Regarding claim 3 DeJager discloses wherein a numerical aperture of the device is 0.70 or more (column 2, lines 44-45).

Regarding claim 4, DeJager discloses wherein the first lens is formed of glass or plastic (column 1, lines 27-28).

Regarding claims 5, 7 and 8, DeJager discloses wherein second (Figure 1, "1") and third (Figure 1, "3") lenses of the three lenses have a positive power (column 1, lines 23-26) and the first lens is disposed between the second and third lenses (Figure 1, "2")

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Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohtake et al (U.S. 5,668,669).

In regards to claim 1, Ohtake et al discloses an objective lens device (Abstract and column 1, lines 13-17, Figure 10) comprising three lenses (Figure 10, "second, third and fourth lenses from left") wherein: a first of the three lenses has a negative power (Figure 10, "third lens from left") and is formed of a material having an Abbe number which is 45 or less in line d (column 15, lines 43-44 and Table 9, "4"), and at least one surface of the surfaces of the three lenses is aspherical (column 18, lines 56-65).

Regarding claim 2, Ohtake et al discloses wherein a second of the three lenses has a positive power and the first lens is combined with the second lens to be a doublet (Figure 10, "second and third lens from left") so that a structure of the objective lens device is formed in two groups of lenses (Figure 10, "G1" and "G2").

Regarding claim 6, Ohtake et al discloses wherein a third of the three lenses has a positive power (Figure 10, fourth lens from left") and the first lens is disposed between second and third lenses (Figure 10, "second, third and fourth lenses from left").

### ***Allowable Subject Matter***

Claims 17-42 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach a combination of all the claimed features as presented in claims 17-35: an optical pickup as claimed specifically comprising an

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objective lens device comprising three lenses, wherein a first of the three lenses has a negative power and is formed of a material having an Abbe number which is 45 or less in line d and an optical path changer arranged between the light source and the objective lens device.

Claims 36-42 are objected to due to the minor informalities set forth above, but would be allowable if rewritten to overcome the objections.

The prior art fails to teach a combination of all the claimed features as presented in claims 36-41: an optical pickup as claimed comprising an objective lens device comprising three lenses specifically wherein the first lens has a negative power and is formed of a material having an Abbe number which is 45 or less in line d.

The prior art fails to teach a combination of all the claimed features as presented in claim 42: an optical pickup as claimed comprising three lenses specifically wherein a first negative lens is formed of a material having an Abbe number which is 45 or less in line d and a second positive lens forms a doublet with the first lens.

Claims 9-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach a combination of all the claimed features as presented in claims 9-16: an objective lens as claimed specifically satisfying the claimed equation regarding focal lengths of the first lens and overall device.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Maruyama et al (U.S. 5,644,437) is being cited herein to show an optical objective system for an optical information recording/reproducing apparatus comprising some of the limitations of that of the claimed invention but does not specifically disclose the objective lens device comprising three lens units as claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Choi whose telephone number is (703) 305-3100. The examiner can normally be reached on Monday-Friday from about 9:00 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (703) 308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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W. C.  
William Choi

Patent Examiner

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December 12, 2002



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